

# Hypertension: Role for pharmacists

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# Disclaimer slide

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# Overview

- Background on Pharmacists
- Approaches to Controlling Hypertension by Pharmacists
- Challenges and Opportunities



# Background Information



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# Pharmacists

**30,060** pharmacists licensed in Texas FY 2015

**4,935** community pharmacies

-Graduating since 2003 with **Doctor of Pharmacy degree**

- 6-yr min. degree plan; at UT-Austin most are entering with Bachelor degree
  - 150+ credit hours
  - 300 clock hours of introductory practice experience
  - 1500+ clock hours of advanced practice experience
    - Mandatory: community, hospital, ambulatory, adult inpatient medicine
- Pass NAPLEX & MPJE exams
- 30 CE hours every 2 year license renewal cycle

-Can adequately assess and manage chronic diseases requiring pharmacological and non-pharmacological agents



# Advanced Practice Pharmacists

- Additional residencies & specialties (1-2+ yrs)
- Board Certification (residency and/or practice experience + exam)
  - Oncology
  - Ambulatory Care
  - Pediatrics
  - Nuclear
  - Pharmacotherapy
    - Infectious Disease
    - Cardiology
  - Nutrition
  - Psychiatric
  - Geriatrics
  - Critical Care
- 100-120 CE hours in specialty every 7 years or by re-examination

# Specialty Certification

- Not limited to pharmacists
- Practice hours & exam; renewable
- Examples
  - CDE – Certified Diabetes Educator
  - BC-ADM – Board Certification in Advanced Diabetes Management
  - CTTS – Certified Tobacco Treatment Specialist
  - ASH-CHC – Certified Hypertension Clinician
  - CLS – Clinical Lipid Specialist



# Pharmacy/Pharmacist Types

- Outpatient
  - Community Pharmacy/Pharmacist
  - Ambulatory Care Pharmacist
    - Specialists
- Inpatient
  - Hospital Pharmacy/Pharmacist
  - Clinical Inpatient Pharmacist
    - Specialists

# Community Pharmacy

- Chain, grocery, big box stores, Amazon(?)
- Mail order
- Independent
- Closed door

Easily accessible (like Starbucks)

Sometimes 24 hours

Internet & phone app access

Delivery



# Community Pharmacists

Same basic training as all pharmacists

- 2-4 years undergraduate school

- 4 years professional pharmacy school

Sometimes additional training but atypical

Work in community pharmacies



# Community Pharmacists

What we do:

Dispense medications

Counsel/educate

Immunize

Supervise up to 4 technicians

Ensure medication safety

-Last line of defense to protect the public

Role is changing from traditional dispensing

- Technicians
- Robots
- Centralized functions



# Ambulatory Care Pharmacist

Same basic training as all pharmacists

Additional training typical

- 1-2 year generalist/specialist residency training

- Board certifications or degrees (i.e. PhD, MD, MBA, MPH)

Different than community and hospital based pharmacists

Work in physician offices and outpatient clinics

# Ambulatory Care Pharmacy

## What we do:

Manage chronic diseases (i.e. diabetes, hypertension, asthma, COPD, lipids, anticoagulation, CHF, many others)

Monitor, order labs, change/optimize medications

Counsel/Educate patients and providers

Disease state & self-management education; “health coaching”

Ensure medication safety, adherence, & affordability

Provide clinical decision support

Drug information & “curbside” consults

Transitions of Care, Medicare Annual Wellness Visit, CCM

Teach

# Pharmacists

What we don't do:  
Diagnose

# Clinical Pharmacy Practice

## How?

### Texas Administrative Code Rule §295.13 – Drug Therapy Management by a Pharmacist under Written Protocol of a Physician

(c) Physician delegation to a pharmacist.

(1) As specified in Chapter 157 of the Texas Medical Practices Act, a physician may delegate to a properly qualified and trained pharmacist acting under adequate physician supervision the performance of specific acts of drug therapy management authorized by the physician through the physician's order, standing medical order, standing delegation order, or other order or protocol.

(2) A delegation under paragraph (1) of this subsection may include the implementation or modification of a patient's drug therapy under a protocol, including the authority to sign a prescription drug order for dangerous drugs, if:

(A) the delegation follows a diagnosis, initial patient assessment, and drug therapy order by the physician;

(B) the pharmacist practices in a hospital, hospital-based clinic, or an academic health care institution; and

(C) the hospital, hospital-based clinic, or academic health care institution in which the pharmacist practices has bylaws and a medical staff policy that permit a physician to delegate to a pharmacist the management of a patient's drug therapy.

## Consult your legal team

# Clinical Pharmacy Practice

## Collaborative Practice Agreement (Protocol)

- Formal consult or visit note

## Typical clinic schedule

- New consults 1-1.5 hrs

- Follow up visits 30-45 min

- About 4 patients per half-day

## Other models

- Visit same day pre/post provider

- Visit during

# Clinical Pharmacy Practice

Success story...

## In general, pharmacists...

- Can manage patients through a collaborative practice agreement with individual prescribers
- Are easily accessible
- May see a patient more frequently than the patient sees their PCP
- Can perform CLIA-waived labs on site
- Can be reimbursed in some situations; Not recognized as billing providers by Social Security Act



# Approaches to Controlling Hypertension by Pharmacists



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# Team-based care

*Arch Int Med.* 2009;169(19):1748-55

Meta-analysis of 37 articles of nurse or pharmacist BP interventions

Results:

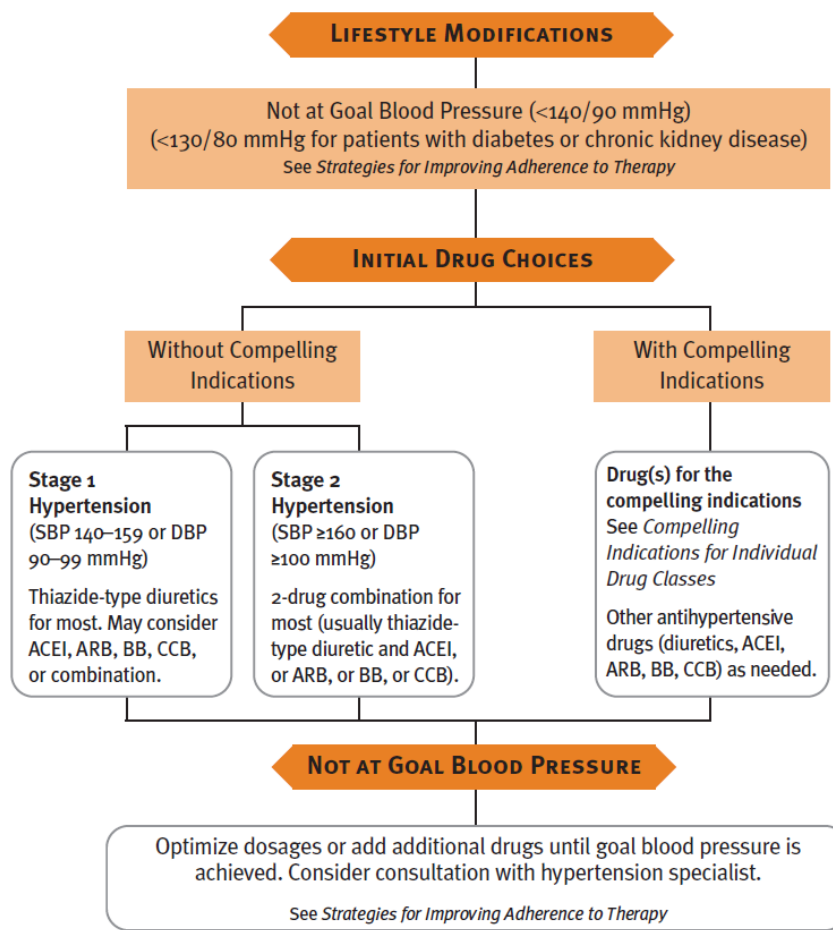
- Education about BP medications (-8.75/-3.60 mmHg)
- Pharmacist treatment recommendations (SBP -9.30 mmHg)
- Intervention by nurses (SBP -4.80 mmHg)
- Use of a treatment algorithm (SBP -4.00 mmHg)

Odds for controlled BP: nurses, 1.69; pharmacists within primary care clinics, 2.17; and community pharmacists, 2.89.

Mean reductions in SBP: nursing studies, 5.84 mmHg; pharmacists in clinics, 7.76 mmHg; and community pharmacists, 9.31 mmHg.

# Treatment algorithms

## ALGORITHM FOR TREATMENT OF HYPERTENSION





# Medicare STAR ratings & value based care

# Pharmacists can reduce hypertension collaboratively

*Arch Intern Med.* 2010;170(18):1634-39

Randomized controlled trial of 179 patients to receive pharmacist-physician collaborative management or usual care.

- Daytime SBP reduced 15.2 mmHg (tx) vs. 5.5 mmHg (control)
- Nighttime SBP reduced 12.1 mmHg vs. 3.4 mmHg
- 24h SBP reduced 14.1 mmHg vs. 5.5 mmHg
- BP control 75% vs 50.7% ( $p < 0.001$ )



# Pharmacists can reduce hypertension independently

*Circulation.* 2015;132(2):93-100

RxACTION Study. Randomized controlled trial of 248 patients in 23 community pharmacies in Alberta, Canada.

Baseline BP  $150 \pm 14 / 84 \pm 11$  mmHg. Avg age 64; 49% male.

- Pharmacists can independently assess CVD risk, order labs, interpret results, & prescribe
- Follow up every 4 weeks for 6 months
- Usual care received an info pamphlet and follow up with PCP
- Results:
  - Systolic BP reduced by 18.3 mmHg vs 11.8 mmHg ( $p=0.0006$ )
  - 2.32 odds of reaching goal vs usual care



# BP reduction by pharmacists is cost effective

*Hypertension*. 2015;66(6):1145-51

CAPTION Study. Randomized controlled trial of 625 patients in 32 clinics in 15 states. Pharmacists communicated with patients and physicians making therapy recommendations.

- At 9 months, SBP -6.1 mmHg, DBP -2.9 mmHg than control group
- HTN control 43% vs. 34%
- Cost include meds, pharmacist & physician time
- Treatment group \$1462.87 vs \$1259.94 (diff \$202.93)
- \$33.27 to lower SBP 1 mmHG
- \$69.98 to lower DBP 1 mmHG
- \$22.55 to increase HTN control by 1%



# Pharmacists can help!



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# Current Challenges

# Patient challenges

Unrecognized risk - THE silent killer

Reluctance to take medication

Treatment burden & polypharmacy

Medication nonadherence (\$44bn avoidable health care costs)

Medication side effects & intolerance

Cost/ Insurance (Not as bad now due to generics)

Access to healthcare or pharmacy

Social determinants of health

Non-adherent to lifestyle modifications

Lack of education/ knowledge

Genetics & Aging



# Prescriber challenges

Treatment burden

Competing priorities/co-morbidities (ie. Acute cold)

Obtaining lab results

Inadequate family history

Drug interactions & Managing side effects

Conflicts between guidelines

Time / Reimbursement

Lack of follow up

Forget to recommend or “prescribe” lifestyle modifications

Clinical inertia



# Pharmacist challenges

Time

Lack of/difficult communication with prescribers

Insurance problems

Knowledge/confidence managing chronic diseases

Not considered providers by SSA

Reimbursement

Prescribers not familiar with pharmacist training/abilities

Rules & Regulations



# Opportunities



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# What can be done?

Education & Outreach

Patient-centered care & Behavioral health models

Group fitness

Financial incentives for achieving goals

Pharmacists & Other health care professionals

Regimen simplification & synchronization

CLIA-waived labs

Population health management

Electronic health information exchange

Treatment algorithms

Practicing Evidence-Based Medicine



# Partner with a College of Pharmacy near you

Required rotation; high need

## Texas Colleges of Pharmacy

Texas A&M University – Kingsville (Kingsville, College Station)

Texas Southern University (Houston)

Texas Tech (Lubbock, Abilene, Dallas)

University of Houston (Houston)

University of North Texas (Ft. Worth)

The University of Texas at Austin (Austin, San Antonio, El Paso, Edinburg)

The University of Texas at El Paso (El Paso)

The University of Texas at Tyler (Tyler)

University of the Incarnate Word (San Antonio)

# Questions?



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